

We claim:

1. In an autostereoscopic display system whereby a lenticular screen is aligned in juxtaposition with a display screen, wherein the improvement
5 comprises the lenticular screen having lenticules on one side thereof facing inwardly toward the display screen and an antireflective coating on another side thereof facing outwardly away from the display screen.

2. The autostereoscopic display system of claim 1, further comprising a
10 closed chamber affixed between the lenticular screen and the display screen and a fluid reservoir in communication with the closed chamber and storing an optically clear fluid that can be introduced and removed from the closed chamber.

3. The autostereoscopic display system of claim 2, further comprising a
15 fluid pump and a control valve coupled to the fluid reservoir and adapted to introduce and remove the fluid from the closed chamber.

4. The autostereoscopic display system of claim 1, wherein the fluid
20 reservoir is a syringe having a handle for transferring fluid to and from the syringe.

5. In an autostereoscopic display system whereby a lenticular screen is aligned in juxtaposition with a display screen, wherein the lenticular screen
25 has lenticules on one side thereof facing outwardly away from the display screen, wherein the improvement comprises a closed chamber affixed over the lenticules and a fluid reservoir in communication with the closed chamber and storing an optically clear fluid that can be introduced and removed from the closed chamber.

6. The autostereoscopic display system of claim 5, further comprising a fluid pump and a control valve coupled to the fluid reservoir and adapted to introduce and remove the fluid from the closed chamber.

5 7. The autostereoscopic display system of claim 5, wherein the fluid reservoir is a syringe having a handle for transferring fluid to and from the syringe.

10 8. An autostereoscopic lenticular screen apparatus, comprising:
a display screen having a display surface,
a lenticular screen having lenticules disposed on one side thereof and a smooth surface on the other side thereof, said lenticular screen being held in juxtaposition to the display surface,
a closed chamber formed over the lenticules,
a fluid reservoir coupled to the closed chamber, and
a transfer valve coupled to the fluid reservoir for introducing and removing an optically clear fluid from the chamber.

20 9. The autostereoscopic lenticular screen apparatus of claim 8, wherein the lenticular screen is oriented with the lenticules facing outwardly away from the display screen.

25 10. The autostereoscopic lenticular screen apparatus of claim 8, wherein the lenticular screen is oriented with the lenticules facing inwardly toward the display screen.

11. The autostereoscopic lenticular screen apparatus of claim 10, wherein the smooth surface of the lenticular screen is coated with an antireflective material.

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12. The autostereoscopic lenticular screen apparatus of claim 8, wherein the fluid is a fluoropolymer

13. The autostereoscopic lenticular screen apparatus of claim 8, wherein the
5 fluid has an index of refraction that is similar to that of the lenticules.

14. The autostereoscopic lenticular screen apparatus of claim 13, wherein the fluid has an index of refraction that is identical to that of the lenticules.

10 15. The autostereoscopic lenticular screen apparatus of claim 8, wherein the lenticular screen is a substrate having lenticules disposed on one side thereof.

16. The autostereoscopic lenticular screen apparatus of claim 15, wherein the substrate is glass.

17. The autostereoscopic lenticular screen apparatus of claim 8, wherein the fluid reservoir is a syringe and the transfer valve is a pump handle on the syringe.

18. A method for switching an autostereoscopic display system between a planar viewing mode and a stereoscopic viewing mode, wherein a lenticular screen having lenticules disposed on one side thereof is aligned in juxtaposition with a display screen, comprising:

forming a closed chamber over the lenticules,

25 introducing an optically clear fluid into a portion of the closed chamber to thereby deactivate the lenticular screen, and

removing the optically clear fluid from the closed chamber to thereby activate the lenticular screen.

19. The method for switching an autostereoscopic system as in claim 18,
wherein the lenticular screen is oriented with the lenticules facing outwardly
away from the display screen.

5 20. The method for switching an autostereoscopic system as in claim 18,
wherein the lenticular screen is oriented with the lenticules facing inwardly
toward the display screen.

21. The method for switching an autostereoscopic system as in claim 20,
10 wherein the lenticular screen has a smooth surface opposite the one side which
is coated with an antireflective material.

22. A method for improving the clarity of an autostereoscopic display system
having a lenticular screen aligned in juxtaposition with a display screen,
wherein the lenticular screen has lenticules disposed on one side thereof and a
smooth surface on another side thereof, comprising:

forming the lenticular screen such that the lenticules face inwardly
toward the display screen, and

forming an antireflective material on another side of the lenticular
screen.